

27. A process for making a tablet as claimed in claim 16 which comprises pressing a mixture of the detergent component with the cellulose granules in a moist condition.

REMARKS

Claims 1-17 and 19-27 are pending in this application, with claims 1-17 and 19-27 being amended and claim 18 being canceled by this Amendment.

In the Office Action, the Examiner objected to the Specification due to reference to claim numbers; rejected claims 16-27 under 35 U.S.C. § 112, first paragraph, as containing language not supported by the Specification; rejected claims 2, 15, 19, 23, and 25 under 35 U.S.C. § 112, second paragraph, as being indefinite; rejected claims 16, 17, 21, and 26 under 35 U.S.C. § 102(b) as being anticipated by Boeck et al. (German Patent No. DE 2 321 693); rejected claims 16, 17, 21, and 26 under 35 U.S.C. § 102(b) as being anticipated by JP '497 (Japanese Patent Publication No. 62-197497); rejected claims 1-7, 11-17, 19-21, and 24-27 under 35 U.S.C. § 103(a) as being unpatentable over Fry et al. (U.S. Patent No. 5,360,567); and objected to claims 8-10, but indicated that these claims would be allowable if rewritten in independent form.

By this Amendment, Applicants have cancelled claim 18, amended claims 1-17 and 19-27, and amended the Specification to correct the reference to claim numbers. In light of the claim and Specification amendments, Applicants respectfully request that the Examiner reconsider and withdraw the objection to the Specification, and the Section 112, first and second paragraph, rejections of the claims. With regard to the prior art rejections, Applicants respectfully traverse these rejections for the following reasons.

The Section 102(b) rejection of claims 16, 17, 21, and 26 over Boeck et al. does not account for a significant difference between the reference and the claims. In the cited example on

page 9, Boeck et al. disclose the use of ungranulated cellulose fibers having a median fiber length of 0.4 millimeters (mm). While the example does not state whether the cellulose fibers are granulated or not, one of skill would understand they are not because at page 2, lines 13-16 the reference discloses that longer fibers of cellulose (median fiber length 0.1 to 0.5 mm) can be mixed into the composition to be tabletted without prior granulation. Moreover, Boeck et al. nowhere disclose granulation by compaction, leading to the granules of compacted cellulose required by the claims. Thus, Boeck et al. fail to teach or suggest cellulose fibers in the form of compacted granules.

In contrast, the present invention recited, for example, in claim 16 comprises a combination of elements, including granules of compacted, finely-divided cellulose material, said granules having a particle size of from 200 μm to 6000 μm . Nowhere does the Boeck et al. reference suggest the claimed *compacted* cellulose material recited in claim 16, and claims 17, 21, and 26, at least by virtue of dependence. Thus, Applicants respectfully submit that claims 16, 17, 21, and 26 are not anticipated by Boeck et al.

With regard to the Section 102(b) rejection over JP '497, this reference discloses a tabletted detergent having an N-containing cellulose ether powder with a particle size fraction passing through a 30 mesh sieve. However, JP '497 fails to disclose whether the N-containing cellulose ether powder is a "compacted, finely-divided cellulose material" as recited in claims 16, 17, 21, and 26. Thus, Applicants respectfully submit that claims 16, 17, 21, and 26 are not anticipated by JP '497.

With regard to the Section 103(a) rejection of claims 1-7, 11-17, 19-21, and 24-27, the Examiner readily admitted that Fry et al. fail to disclose or suggest the particle size of the cellulose. However, the Examiner asserted that it would have been obvious to expect the particle

size of the cellulose of Fry et al. to be within the range from 200 to 2000 μm because Fry et al. desire the matrix of the particles of the composition to have a particle size within this range. Applicants respectfully disagree with the Examiner's obviousness conclusion.

Fry et al. disclose a detergent tablet having a matrix of particles with a particle size within the range from 200 to 2000 μm . (Abstract). The reference further discloses that the matrix of particles, before compaction, are coated with a binder/disintegrant such as celluloses and cellulose derivatives. (Col. 5, line 43 – col. 6, line 1). Fry et al. also disclose that it would be “highly advantageous for the binder/disintegrant to coat or envelop the matrix [of] particles, rather than simply to be mixed with them.” (Col. 6, lines 21-23). Thus, there is no disclosure or suggestion of the particle size of the cellulose of Fry et al., nor of compacting the cellulose prior to its admixture to the matrix of particles. Furthermore, if the cellulose particles are to be coated on the matrix of particles, it logically follows that they would be much smaller than the particle size of the matrix of particles and *not* the same size (as reasoned by the Examiner).

In contrast, claim 1 and claims 2-7 and 11-15, at least by virtue of dependence, recite a combination of elements, including granules of finely divided cellulose material, wherein the cellulose material is compacted prior to its admixture to the laundry detergent composition and is present in the compact in the form of compacted granules having a density of from 0.5 to 1.5 g/cm^3 .

Further in contrast, claim 16 and claims 17, 19-21, and 24-27, at least by virtue of dependence, recite a combination of elements, including granules of compacted, finely-divided cellulose material, said granules having a particle size of from 200 μm to 6000 μm .

In light of the above, Applicants respectfully submit that Fry et al. fail to disclose or suggest the combination of elements recited in claims 1-7, 11-17, 19-21, and 24-27. Thus, these claims are not obvious over Fry et al.

In view of the foregoing amendments and remarks, Applicants respectfully request that the Examiner reconsider and withdraw the Section 102(b) and 103(a) rejections of the claims, reconsider this application, and timely allow pending claims 1-17 and 19-27.

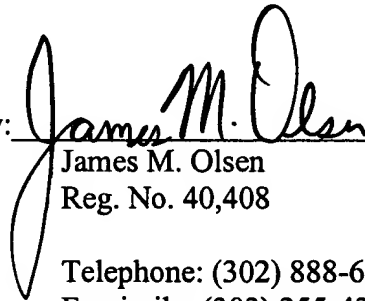
If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 03-2775. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

CONNOLLY BOVE LODGE & HUTZ LLP

Dated: August 6, 2002

By:



James M. Olsen
Reg. No. 40,408

Telephone: (302) 888-6256
Facsimile: (302) 255-4256

Exhibit A – Amendments to Specification and Claims of Serial No. 09/380,739

IN THE SPECIFICATION:

Please amend the specification as follows:

Please replace the paragraph on page 1, lines 3-5 with the following paragraph:

The invention relates to a laundry detergent compact [of the type corresponding to the precharacterizing clause of Claim 1] comprising a pulverulent and/or granular laundry detergent composition and an incorporated disintegrant comprising finely-divided, cellulose material, which is intended for rapid dissolution/dispersion with release of the laundry detergent composition following introduction into liquid.

Please replace the paragraph on page 4, lines 3-4 with the following paragraph:

This object is achieved by means of the invention [recited in Claim 1] of a laundry detergent compact comprising a pulverulent and/or granular laundry detergent composition and an incorporated disintegrant comprising finely-divided, cellulose material, which is intended for rapid dissolution/dispersion with release of the laundry detergent composition following introduction into liquid, wherein the cellulose material is compacted prior to its admixture to the laundry detergent composition and is present in the compact in the form of compacted granules having a density of from 0.5 to 1.5 g/cm³.

Please replace the paragraphs on page 8, lines 1- with the following paragraphs:

A particle size of the starting material, which is in the form of relatively large granules following compaction, of 40-60 μm has proven judicious for laundry detergents [(Claim 2)]. Such fine cellulose starting materials can be produced at a comminution expense which is still acceptable, and are virtually absent from the laundry.

[According to Claim 3, the] The compacted particles of the cellulose material, i.e., the granules, can have a particle size of from 0.2 to 6.0 mm, in particular from 0.3 to 1.5 mm [(Claim 4)], the most judicious particle size depending inter alia on the size of the laundry detergent compact and, indirectly, on the nature of the ingredients of the detergent compact, insofar as, for example, different laundry detergents have different compositions with different pressing and disintegration properties.

[According to Claim 3, the] The weight fraction of the compacted cellulose material in the finished detergent compact can be from 3 to 6 percent.

It is also advisable for the detergent compact to comprise, additionally, a fraction of finely divided noncompacted cellulose material [(Claim 6)].

Please replace the paragraphs on page 8, line 28 – page 9, line 5 with the following paragraphs:

The weight fraction of the uncompacted cellulose material in the finished detergent compact can be from 1 to 3 percent [(Claim 7)].

The compacted cellulose material present in the detergent compact can have a coating comprising a swelling agent and/or thickener [(Claim 8)].

Please replace the paragraphs on page 9, line 10 – page 10, line 2 with the following paragraphs:

Furthermore, it may be advisable for the cellulose material present in the detergent compact to have a coating comprising a surfactant [(Claim 9)], which can make up a weight fraction of from 0.5 to 5.0 percent of the finished detergent compact [(Claim 10)] and which is present in the detergent compact in addition to the surfactant already present in the pulverulent

laundry detergent. The surfactant is intended to promote the distribution of the liquid along the surface of the particles of the cellulose material.

The dispersion properties of the cellulose material can be increased if it is at least partly fibrillated, i.e., is comminuted down to the level of bundles each comprising a few cellulose fibers lying parallel to one another [(Claim 11)].

In order to achieve sufficient dispersibility, i.e., instant disintegration of the detergent compact following introduction into the liquid, it is advisable to press it from a mixture of the pulverulent or granular ingredients with the finely divided cellulose material in dry or earth-moist form [(Claim 12)].

Please replace the paragraph on page 10, lines 8-11 with the following paragraph:

In the course of the development work, two kinds of cellulose material were found particularly suitable, namely TMP (= thermo-mechanical pulp) [(Claim 13)] and CTMP (= chemo-thermo-mechanical pulp) [(Claim 14)].

Please replace the paragraph on page 11, lines 7-9 with the following paragraph:

The relevant dimensions of the laundry detergent compact are characterized by a larger dimension of from about 1 to 10 cm, preferably from 2 to 4 cm [(Claim 15)].

IN THE CLAIMS:

Please cancel claim 18, without prejudice or disclaimer of the subject matter thereof, and amend claims 1-17 and 19-27, as follows:

1. (Amended) Laundry detergent compact comprising a pulverulent or [and/] granular [[sic]] laundry detergent composition and an incorporated disintegrant, said disintegrant comprising granules of finely divided cellulose material, [which is intended for rapid

dissolution/dispersion with release of the laundry detergent composition following introduction into liquid, characterized in that] wherein the cellulose material is compacted prior to its admixture to the laundry detergent composition and is present in the compact in the form of compacted granules having a density of from 0.5 to 1.5 g/cm³.

2. (Amended) Laundry detergent compact according to Claim 1, [characterized in that in the case of a laundry detergent composition] wherein the particle size of the cellulose [starting] material prior to compaction is from [20 to 200 μm, preferably from] 40 μm to 60 μm.

3. (Amended) Laundry detergent compact according to Claim 1, [characterized in that in] wherein the compacted granules of the cellulose material have a particle size of from 0.2 to 6.0 mm.

4. (Amended) Laundry detergent compact according to Claim 3, [characterized in that in] wherein the compacted granules of the cellulose material have a particle size of from 0.4 to 1.5 mm.

5. (Amended) Laundry detergent compact according to Claim 2, [characterized in that] wherein the weight fraction of the compacted cellulose material in the finished compact is from 3 to 6 percent.

6. (Amended) Laundry detergent compact according to Claim 1, [characterized in that it additionally includes] wherein said disintegrant further comprises a fraction of finely divided noncompacted cellulose material.

7. (Amended) Laundry detergent compact according to Claim 6, [characterized in that] wherein the weight fraction of the noncompacted cellulose material in the finished compact is from 1 to 3 percent.

8. (Amended) Laundry detergent compact according to Claim 1, [characterized in that] wherein the cellulose material present in the compact has a coating comprising a swelling agent and/or thickener.

9. (Amended) Laundry detergent compact according to Claim 1, [characterized in that] wherein the cellulose material present in the compact has a coating comprising a surfactant.

10. (Amended) Laundry detergent compact according to Claim 9, [characterized in that] wherein the compact comprises the surfactant in a weight fraction of from 0.5 to 2.0 percent of the finished compact.

11. (Amended) Laundry detergent compact according to Claim 1, [characterized in that] wherein the compact comprises fibrillated cellulose material.

12. (Amended) Laundry detergent compact according to Claim 1, [characterized in that] wherein the compact has been pressed from a mixture of the pulverulent or granular ingredients with the finely divided cellulose material in dry or earth-moist form.

13. (Amended) Laundry detergent compact according to Claim 1, [characterized in that] wherein the cellulose material [is] comprises TMP (thermo-mechanical pulp).

14. (Amended) Laundry detergent compact according to Claim 1, [characterized in that] wherein the cellulose material [is] comprises CTMP (chemo-thermo-mechanical pulp).

15. (Amended) Laundry detergent compact according to Claim 1, [characterized in that] wherein the largest dimension of the compact is from 1 to 10 cm[, preferably from 2 to 4 cm].

16. (Amended) A compacted detergent tablet [of cleaning composition], comprising a laundry detergent component and granules of [a] compacted, finely-divided cellulose material, [component,] said granules having a particle size of from 200 μm to 6000 μm .

17. (Amended) A tablet according to claim 16, wherein the granules of the cellulose [component] material have a particle size of from 300 μm to 1500 μm .

19. (Amended) A tablet according to claim 16, [19] wherein the cellulose material [mechanical wood pulp is] comprises thermo-mechanical [derived] wood pulp.

20. (Amended) A tablet according to claim 16, [19] wherein the cellulose material [mechanical wood pulp is] comprises chemo-thermo-mechanical [derived] wood pulp.

21. (Amended) A tablet according to claim 16, wherein the cellulose [component] material comprises 3 to 6 wt %[,] by weight of the tablet.

22. (Amended) A tablet according to claim 16, wherein the cellulose [component] material has a coating comprising a surfactant.

23. (Amended) A tablet according to claim 22 [24], wherein the surfactant coating comprises 0.5 to 5 wt %[,] by weight of the tablet.

24. (Amended) A tablet according to claim 16, wherein the [granules of the] finely-divided cellulose material comprises [component are aggregates of] cellulose particles having a particle size of 20 μm to 200 μm .

25. (Amended) A tablet according to claim 16 [26], wherein the [granules of the] finely-divided cellulose material comprises [component are aggregates] of cellulose particles having a particle size of from 40 μm to 60 μm .

26. (Amended) A process for making a tablet as claimed in claim 16 which comprises pressing a mixture of the detergent component with the cellulose [component] granules in a dry condition.

27. (Amended) A process for making a tablet as claimed in claim 16 which comprises pressing a mixture of the detergent component with the cellulose [component] granules in a moist condition.